

The work at first proposes ideas of the nested and external simulation. The external simulation works with the model M and the nested simulation work with the model N. The external simulation always calls nested simulation so that the nested model N is initialized according to the state of the external model M and then the nested experiment is performed. Its result can influence the state of the external model. The reflective simulation is a special case of the nested simulation when the external and the nested models are identical or almost identical. We describe how to implement reflective simulation in Simula language. Using this knowledge, we implement reflective simulation of patients-in-bed movement in Simula language. The resulting fully functional program clearly demonstrates properties of the reflective simulation.